

WHAT IS CLAIMED IS:

1. An electrode plate unit comprising
a group of electrode plates in which a plurality of positive electrode
5 plates and a plurality of negative electrode plates are laminated alternately
via separators,
a positive electrode collector plate being connected to one side face of
the group of electrode plates for connection to the positive electrode plates,
and
10 a negative electrode collector plate being connected to another side
face of the group of electrode plates for connection to the negative electrode
plates,
wherein an edge portion of the positive electrode plate is protruded
from an edge portion of the negative electrode plate on an entire side face of
15 the group of electrode plates excluding the side face to which the negative
electrode collector plates are connected.
2. The electrode plate unit according to claim 1, wherein each of the
positive electrode plate and the negative electrode plate has a positioning hole
20 formed on the edge portion of the side to which the positive electrode collector
plate or the negative electrode collector plate is connected.
3. The electrode plate unit according to claim 2, wherein each of the
positive electrode plate and the negative electrode plate has an electrode
25 portion filled with an active material and a lead portion intervening between
the electrode portion and the positive electrode collector plate or the negative
electrode collector plate, and the positioning holes are formed on the lead
portion.
- 30 4. The electrode plate unit according to claim 2, wherein each of the
positive electrode plate and the negative electrode plate is provided with a
plurality of positioning holes, and at least one of the positioning holes has a
circular shape and at least another positioning hole has an slot shape.
- 35 5. The electrode plate unit according to claim 1, wherein the positive
electrode plate or the negative electrode plate is enveloped by the separator
with the edge portion connected to the positive electrode collector plate or the

negative electrode collector plate exposed.

6. A battery in which the electrode plate unit according to claim 1 is housed in a battery case together with electrolyte.

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7. An electrode plate unit, wherein a belt-like group of electrode plates in which a positive electrode plate and a negative electrode plate are laminated via a separator is rolled along the direction of the longer side thereof, and the edge portion of the positive electrode plate protrudes from the edge portion of the negative electrode plate at least on a side face of the shorter side of the group of electrode

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8. A battery in which the electrode plate unit according to claim 7 is housed in a battery case together with electrolyte.

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9. An electrode plate unit comprising
a group of electrode plates in which a plurality of positive electrode plates and a plurality of negative electrode plates are laminated alternately via separators, and

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a collector plate connected to one side face of the group of electrode plates by a plurality of welding portions,

wherein the interval between the welding portions in the connection portion between the collector plate and the group of electrode plate is set to be narrower in the region in which the density of electric current collected by the collector plate is higher.

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10. The electrode plate unit according to claim 9, wherein the collector plate is disposed with one end portion protruded from the group of electrode plates, and the welding portion is formed so that the intervals between the welding portions are narrower in a region closer to the edge portion of the collector plate being protruded from the group of the electrode plates.

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11. The electrode plate unit according to claim 9, wherein the welding portion has a linear shape along the direction in which the electrode plates are laminated.

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12. The electrode plate unit according to claim 9, wherein a brazing filler

metal is disposed between the collector plate and the group of electrode plates in the welding portion.

13. An electrode plate unit comprising
- 5 a group of electrode plates in which a plurality of positive electrode plates and a plurality of negative electrode plates are laminated alternately via separators, and
- a collector plate connected to one side face of the group of electrode plates by a plurality of welding portions,
- 10 wherein a positioning hole is formed on the edge portion of each of the electrode plates being connected to each of the collector plate, and in the connecting surface between the collector plate and the group of electrode plates, the welding portion is formed so that the welding portion is not aligned with the positioning hole.
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14. The electrode plate unit according to claim 13, wherein each of the electrode plates comprises an electrode portion filled with an active material and a lead portion intervening between the electrode portion and the electrode collector plate, and the positioning holes are formed on the lead portion.
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15. The electrode plate unit according to claim 13, wherein a plurality of positioning holes are formed on each of the positive electrode plate and the negative electrode plate, and at least one of the positioning holes has a circular shape and at least of the another positioning holes has an slot shape.
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16. The electrode plate unit according to claim 13, wherein the welding portion is of a linear shape along the direction in which the plates are laminated.
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17. The electrode plate unit according to claim 13, wherein a brazing filler metal is disposed between the collector plate and the group of electrode plates in the welding portion.
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18. A battery wherein the electrode plate unit according to claim 13 is housed in a battery case together with the electrolyte.